

CCFL CIRCUIT WITH INDEPENDENT ADJUSTMENT
OF FREQUENCY AND DUTY CYCLE

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ABSTRACT

Two independent control variables, i.e. the frequency and the duty cycle of the driving waveform to an output driver, can be used to optimize the operation of a cold cathode fluorescent lamp (CCFL). The frequency of the driving waveform can be used to control the gain of a piezoelectric transformer (PZT) in a CCFL circuit. In contrast, the duty cycle of the driving waveform can be used to control the amplitude of the sinusoidal waveform at the PZT input terminal, and thus the current through the CCFL.